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BASIC ISSUES, MACRO POLICIES AND COMPONENTS OF A PROGRAMME OF DEVELOPMENT*

by

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TABLE OF CONTENTS

		Paras
I.	Integrated Rural Development	
	a. The Need for Rural Development.	1.1 - 1.7
	b. Concepts of Integrated Rural Development	1.8 - 1.13
II.	The Role of Rural Industries Within Integrated Rural Development Programme	
	a. Role of Rural Industries in the Rural Economy	2.1 - 2.6
	b. What is Rural Industrialisation.	2.7 - 2.10
	c. Rural-Urban Continuum and Interdependance.	2.11- 2.14
	d. Factors Promoting or Inhibiting Rural Industrialisation.	2.15- 2.19
III.	Types of Industries Suitable for Rural Areas	
	a. General Considerations.	3.1 - 3.4
	b. Rural Service Industries.	3.5 - 3.8
	c. Rural Craft Industries	3.9 - 3.11
	d. Rural Agro-based Processing Industries.	3.10- 3.14
	e. Other Rural-Resource-Based Industries.	3.15- 3.16
	f. Non-Rural Resource-based and Sub-contract Derived Rural Industries	3.17- 3.18
IV	Components of a Programme for Promotion of Rural Industries in Integrated Rural Development Programmes	
	a. General Factors	4.1 - 4.5
	b. Entrepreneural, Ownership and Management Structures	4.6 - 4.13
	c. Infrastructural Requirements.	4.14- 4.17
	d. Manpower and Skill Requirements.	4.18- 4.23
	e. Government Promotional Agencies	4.24- 4.27

I. INTEGRATED RURAL DEVELOPMENT

a. The Need for Rural Development

1.1 In most developing countries, rural areas account for about 55-85 percent of the total population and the agricultural sector engages about 40-70 percent of the total labour force. Table 1 below gives some representative figures of the concentration of population and labour force in rural areas and in the agricultural sector respectively.

Table 1: Rural Population & Labourforce in Selected Countries

Country	Population '000	% Population in rural areas	Labour Force '000	% Labour Force in Agriculture
India	547,95 (1971)	80.1	180.37 (1971)	72.0
Indonesia	118,46 (1971)	82.5	40.10 (1971)	62.2
Pakistan	64.98 (1972)	74.5	20.09 (1974)	57.3
Phillipines	36.59 (1970)	68.2	15.16 (1975)	52.0
Egypt	37.23 (1975)	55.4	8.33 (1966)	53.3
Iran	33.38 (1975)	56.0	7.58 (1966)	41.8
Syria	7.12 (1974)	54.1	1.72 (1974)	50.8
Sudan	17.32 (1974)	86.8	4.44 (1973)	66.5
Turkey	38.27 (1970)	58.4	15.12 (1970)	67.6
Equador	6.50 (1974)	58.7	1.89 (1974)	46.5
Guatumala	5.09 (1970)	66.2	1.55 (1973)	57.0
Peru	15.38 (1972)	44.7	3.87 (1972)	40.9

1.2 Whatever average gains were recorded in the initial development efforts in developing countries, it hid the fact that certain sectors, areas and regions gained at the expense of others, certain sections of the population prospered more than others, and certain individuals advanced economically more than others. The sectors which gained more were the manufacturing and trading sectors and the areas which gained more were the urban areas. Most development plans had laid considerable emphasis on the manufacturing sector and this in turn resulted in concentration of infrastructual development in the urban areas. In the late 50's and early 60's

the falacy of these development trends began to be realised, and planners started to look into means by which rural areas and particularly the productive sectors located in rural areas could be more fully integrated into national development efforts. This shift in emphasis no doubt brought the agricultural sector into the limelight.

1.3 During the last two decades the agricultural sector has seen major changes particularly in regard to land reforms affecting ownership patterns, mobilisation of labour and rural savings, as also introduction of new agricultural technologies affecting output and input patterns. However, even after more than two decades of efforts in this direction, it is generally recognised that there is no room for complacency. Rural-urban income disparities continue to be high in developing countries, starting from 3:1 and going upwards, and there are indications that this disparity is growing and not narrowing. The Asian Development Bank in a recent study states that[a.] rural poverty is particularly widespread in member countries of the region and there is a general concensus that the problem has worsened considerably during the past decade. In most of the countries, the lowest 40 percent of the people receive less than 20 percent of the income. It further states that "the road ahead is much harder". The World Bank in a recent paper[b.] has stated that approximately 85 percent of all absolute poverty is in rural areas and if income of less than 1/3rd. of the national average of each country is used as a standard, then about 40 percent of the total population of developing countries are living at levels of absolute or relative poverty, of which 80 percent reside in rural areas.

1.4 Varying degrees of emphasis on the development of the rural sector has not only continued during the last two decades, but there are indications that this emphasis will have to be augumented.[c.] Therefore a

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a. Rural Asia: Challenge and Opportunity, 1977; also as reported in ADB Quarterly Review, July-August 1977. Asian Development Bank, Manila, Phillipines.

b. Rural Development, Sector Policy Paper, World Bank, Washington, D.C. February 1975.

c. This is also evident in the creation in 1976 by the United Nations, Administrative Committee on Coordination, of a spacial Task Force on Rural Development.

Major reappraisal is in process almost throughout the world and new thinking on the policies, patterns and means used for developing rural areas is being undertaken. Such a reappraisal indicates generally that employment expansion through expansion of acreage under cultivation is limited in most countries and therefore the man-land ratios are worsening. Therefore, increases in farm output and incomes can largely be achieved by increases in acreage yields, and family incomes improved through increases in labour productivity. This in turn will lead to considerable changes in manpower requirements. If incomes of those engaged in agriculture are to be doubled or trebled through intensification, expanded production and technological modernisation, it is seen that manpower required for this sector in absolute terms will not greatly exceed what it has now, and in some cases it will be less. Secondly, urbanisation and demand for manpower in other sectors of the economy is not keeping up to the total growth of labourforce in both rural and urban areas. Thus, in almost all developing countries a situation has developed wherein major growth of labourforce is taking place in rural areas, with agriculture not able to absorb the additional hands, and industries and services in urban areas are unable to expand employment opportunities to take care of the normal expansion of labourforce in urban as well as rural areas. Therefore if the surplus rural labourforce continues to stay in rural areas, it depresses rural incomes and living conditions still further. On the other hand if it migrates out (which is a common phenomena), it creates the slum conditions that one sees in almost all urban localities in developing countries.

1.5 Taking two illustrative examples[a.] of the magnitude of this problem, it is estimated that in India a percentagewise decline will take place in the rural population from 80.1 percent of the total in 1971 to 70.6 percent in 2001[b.], but the agricultural labourforce will not

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a. In this paper two countries have been selected for special examination, viz. India and Iran largely because of the differences in their resources and manpower situation.

b. Government of India, Registrar General of India, 1974 World Population Year, CIR-CRED Series.

increase much from the present level of 129 million, in order to help double the income of families engaged in agriculture.[a.] This would mean that the balance of the addition to the rural labourforce during this period, estimated at 77 million will have to be absorbed elsewhere, assuming the participation rate remains the same. In Iran, it is estimated that the rural population will decline from 57.2 percent of the total population in 1972, to about 40.0 percent of the total in 1992[b.]. The estimated demand for manpower in agriculture will however continue to remain in the range of 3.5-3.8 million throughout the period 1972-92 thus indicating that the net addition of about 1.3-1.4 million to the rural labour force will have to be absorbed elsewhere either in rural or urban areas.

1.6 Development strategies have aimed at solving this problem either by giving priority to "modern" sectors with the hope that these sectors, and the indirect spread effects from them, will reach rural areas and the rural poor and alleviate their problems, or by a more direct approach to rural development by helping increase rural production and incomes. It is this latter approach which is gaining considerable ground against those who think that rural development efforts, by laying emphasis on a poorly developed sector, will lead to slower overall growth rates. ILO's studies to date suggest that average national growth rates may need to be much higher than hitherto, and probably unattainable, if the needs of the poorest groups have to be met through "trickle down" effects only.[c.] In this new concern on the rural sector, it is seen that though agriculture is a key rural productive sector, the emphasis is moving away from exclusive attention to agricultural development, to a more comprehensive multi-sectoral approach.

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a. Problems of Urbanisation, Population Projections, by C.S.Chandraskhara, Economic Times, Bombay, 13-14 Sept.1977.The present level includes cultivators, agricultural labourers and workers in livestock, orchards, etc. as at 1971.

b. Development of the Rural Non-Farm Sector in Iran (Part I, Revised) 1977; by P.K.Das and A. Templeman, ILO-UNDP, Teheran.

c. Statement by ILO's delegate to the UN Economic and Social Council Session, July 1977.

Attention to social programmes only to alleviate the problems of disparity in incomes will not be adequate. A vast increase in output in all sectors is needed, and hence the need to look at other productive sectors as well. The questions facing development planners is which other sectors need to be taken up, what are their growth potentials, under what conditions and in which organisational pattern of development effort can they be promoted.

1.7 The rural non-farm productive sector as it exists in most developing countries comprises of farmer families inadequately engaged in agriculture who ply other part-time trades, and the rural labour force engaged in manufacturing, construction and productive services, some of which support agricultural activities, some of which service the needs of the rural population and some of which produce articles for the urban and export markets. In India about 10.0 percent of the rural labour force[a] is engaged in such non-farm activities, of which 33 percent are in rural household industry, 23 percent in rural manufacturing (other than household type), 4 percent in rural mining and quarrying, 7 percent in rural construction activities, and 33 percent in commercial transport and storage services. In Iran, this sector engages about 23.1 percent of the rural labour force of which 35 percent are in rural crafts, 6 percent in rural manufacturing (other than crafts), 23 percent in construction activities, and 36 percent in commercial, transport and community based productive services. It is this aggregated sector which is now being examined in greater depth in several countries as to its development potential, and potential for employment generation and incomes improvement. In India, one estimate suggests[b] that the sector which services agriculture must needs to expand rapidly in 2 decades to employ about 22 percent of the rural labour force from its present level of about 6-7 percent. If this percentage change generally applies, it would mean that the whole of the non-farm sector may have to expand from the existing level of about 10 percent of rural labourforce to over

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a. Population Statistics, Census Centenary 1972, Registrar General & Census Commissioner. The data relates to 1971. The figure excludes those in other services (mostly in administrative and social) and unemployed.

b. C.S. Chandrashekaran, op.cit. Economic Times 13-14 Sept. 1977.

30 percent in 2-3 decades. In Iran, estimates place the need for expansion of the rural non-farm sector as a whole by 1992 to employ about 40 - 50 % of the rural labour force[a]. The role of rural industries in this expansion needs to be closely examined.

b. Concepts of Integrated Rural Development

1.8 The objective of rural development programmes is not only economic development in its narrow sense, but balanced social and economic development. Such an objective has been attempted to be achieved in the past through either "selective or single-sectoral" programmes or "integrated or comprehensive" development programmes. The former approach tries to deal with a single activity or sector such as agriculture, education, health, etc. on the understanding that it's development will either remove the constraints to more all round development or trigger such a development. The latter approach tries to deal with mutually reinforcing activities and sectors in a coordinated manner aiming at providing a sustained rise in rural employment and income levels and levels of living in general.

1.9 The term "integrated" has however been used in various places to mean different things. In the early years of rural development programmes, it meant the combination of economic and social development programmes. Thus attention was focused on agricultural development, this being the predominant productive sector, and to social programme in the fields of education and health though not necessarily coordinated. In some countries it included uplift of rural crafts as well. In some other countries, the term "integrated" has been used to denote a programme offering an integrated package of incentives and services for the development of a single rural sector such as agriculture, but in most such cases certain elements of social uplift programmes have also been included.

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a. P.K. Das, op.cit. 1977.

1.10 More recent pronouncements bring out the comprehensiveness of both the objectives and methods of implementation of such programmes. The ILO's Advisory Group on Rural Employment Promotion through Integrated Rural Development agreed that "rural development included both the promotion of agricultural and various non-agricultural activities in the rural areas", and "an integrated approach was essential, both in the sense of adopting a multi-pronged attack on rural poverty as well as of a fuller integration of the rural sector into the national economy. Integration was also to be understood as applying both to the planning and implementation processes as well as to the entirety of the rural problems and potential".[a.]

1.11 The Government of India in a document entitled "Strategy for Integrated Rural Development" issued as part of the budget document for 1976-77 states that the new "concept of rural development as visualised now, presupposes a strategy of integrated rural development of agriculture, industry and social services- complementing each other in achieving a systematic, scientific and integrated use of all natural resources- physical and human- for the betterment of the rural population"[b.]. An essential feature of this new strategy was the importance attached to the growth of the non-farm sector alongside the development planned in respect of the farm sector on the realisation that "modern agriculture also needs a strong industrial base and an efficient delivery system". The Finance Minister in explaining the new strategy stated that "what is called for is something more comprehensive and fundamental - systematic, scientific and integrated use of all our natural resources and as a part of this process, enabling every person to engage himself in a productive and socially useful occupation, and earn an income that would meet atleast the basic minimum needs". This emergence of the importance of the rural non-farm sector and rural industries in particular in integrated rural development programmes is only very recent. In the

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a. Report of the ILO Advisory Working Group, World Employment Programme, Rural Employment Promotion through Integrated Rural Development, Geneva, 1974.

b. Strategy for Integrated Rural Development, Government of India, New Delhi, March 1976.

past this sector had received a low priority or emphasis in such rural programmes even though it was known that the agricultural sector could not meet the employment and income aspirations of the rural masses.

1.12 What emerges from this discussions is that "rural development" by definition cuts across all sectors and therefore is multi-sectoral. The term "integrated" is redundant for the sake of bringing out the multi-sectoral nature of such a programme. However the term "integrated" is used to reinforce three essential features of the planning and implementation processes, viz:

a. Integration with national plans and policies with emphasis on attacking the problems of rural areas;

b. Coordination of the various component sectoral programmes both in planning and implementation through adequate institutional and administrative structures and coordinating machinery to obtain effective participation of government ministeries and departments organised on sectoral and activity lines, and

c. Participation of rural people in the planning and implementation process i.e. integration of their hopes, aspirations and approaches to development with those at national levels.

1.13 A more recent aspect of such programmes is the definition of the target group for whom such programmes are meant. It is the general concensus that integrated rural development programmes are meant specifically for the rural poor.[a.] The Integragency Coordinated Plan of Action for Integrated Rural Development in the ESCAP region states that the main objective of integrated rural development.... is improvement of the quality of life of the rural poor.[b.]

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a. United Nations, A.C.C.Task Force on Rural Development, Geneva, March 1977 and A.C.C.'s Progress Report on Rural Development suggest that "Organisations in the United Nations system should be asked to orient or reorient their programmes in rural development to ensure that the benefits accrue primarily to the rural poor".

b. Formulated at Tokyo in February 1977.

II. THE ROLE OF RURAL INDUSTRIES WITHIN INTEGRATED RURAL DEVELOPMENT PROGRAMMES

a. The Role of Rural Industries in the Rural Economy

2.1 Whereas the agricultural sector holds pride of place in the rural economy, as discussed earlier, it is not likely to fulfil the expectation of providing adequate employment opportunities to the already large and growing rural labourforce. The development of alternative sectors is needed and rural industries can play a major role in this direction.

2.2 Urbanisation has become more and more capital intensive. Social costs of establishing industries in overcrowded urban centres are increasing. Mere urban renewal programmes do not solve the problem of conjestion in cities unless the steady flow of migrants can be arrested, and the only way to do this is to develop the rural areas in respect of their potentials for employment. Rural industrialisation may provide an alternative to urban-industrialisation at lower economic and social costs by taking industrial development to where people are already.

2.3 Taking the purely employment and incomes objectives, rural industries along with other activities in the non-farm group have a role to play in:

a. Providing income augumentation opportunities for those who are under-employed in agriculture or in other rural sectors. This has already two sub-groups,viz: (i) those who do not have adequate or full-days work even during peak agricultural seasons, such as marginal farmers, and (ii) those who are seasonally unemployed only, such as farmers in non-irrigated lands.

b. Providing employment and income opportunities for those who are generally unemployed or have uncertain or unsteady employment, or are newly entering the workforce.

Rural industries, in addition to expanding rural employment opportunities as such, often fit into the seasonal nature of many agricultural activities.

2.4 Rural industries have a role to play in strengthening the rural economy as a whole as many of the industrial activities which are viable at that level either act as an input to agricultural activities, or process its products i.e. provide the forward and backward linkages to agriculture, animal production, etc. Progress in agriculture has resulted in increase in technological inputs on a large scale which need to be provided largely in the locality. Moreover, because industrial activities are often non-traditional and "modern", they act as a catalyst for modernising other sectors of the rural economy.

2.5 Rural industries in helping diversify the rural economy and taking the community away from the varying fortunes of agriculture arising out of fluctuating natural and market conditions, and providing a balancing factor in respect of employment and incomes of the community, also help in enriching the quality of life, because of the introduction of diversity.

2.6 Finally, rural industries help in a more rational spatial distribution of manufacturing activities in the country. They are intended to fulfil the role the UN Committee for Development Planning stated in that "industrialisation should be viewed primarily as a means of improving the conditions of work and living standards of the poverty stricken masses the world over, and not merely as a means of producing a wider variety of products by application of modern technology. If this is not kept in mind, efforts to industralise may leave the lives of the majority of people untouched"[a].

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a. Industralisation for New Development Needs, United Nations, 1974 pg.8.

b. What is Rural Industrialisation

2.7 Rural Industrialisation does not and cannot mean the establishment of industrial enterprises in every village, whatever the size of the village. Selectivity has to be exercised in regard to location of manufacturing activities since industry requires a certain type and minimum level of physical infrastructure and manpower, and the provision of such infrastructure is costly. Therefore, a certain degree of locational concentration of industry is economically desirable. Hence, rural industrialisation has to be concieved within the broad national objective of more even dispersal of industrial activities, but economic limits to such disperal call for a certain degree of sub-concentration within rural areas.

2.8 As will be discussed later in this paper, there are different categories of industries suitable for rural areas classified either in terms of the sources of raw material inputs or the market/clientel they serve. Each of these categories can be considered to have different threshold levels for their implantation or emergence, in terms of the size of rural population centres and the facilities that these centres offer. The rural sector is however variously defined in different countries, mostly in terms of the population-size of communities, varying from 2,000 to about 10,000. In India and Iran the dividing line is 5,000 residents to distinguish rural localities from urban ones. It is however seen that where the dividing line is set at a low level, and urbanisation is not proceeding at a good pace in the country concerned, then there is a high percentage of 'towns' which have all the attributes of a rural settlement, such as in the percentage of workforce engaged in primary sector activities, and in the servicing of rural needs. Some rural industries have a threshold level for promotion in localities which are legally categorised as 'urban' but are functionally rural settlements. Therefore for purposes of considering a policy and programme for rural industries development, the 'rural milieu' should be considered more in functional terms, and if the legal definition varies considerably from functional attributes of the rural sector, then a programme for rural industries promotion can be frustrated.

2.9 A programme for rural industries development, for example, may be wrongly concentrated in legally defined 'rural' localities, but which are basically suburban areas to large cities or a metropolis. The manufacturing and service activities of such localities are all geared to the needs of the cities to which they adjoin. This has happened in several countries. Thus the purpose of diversifying the rural economy or providing income opportunities to rural residents is not served by such a programme, and the basic components of a programme for rural industries described in this paper will not apply to such a misdirected effort. Nor does rural industries development imply the setting up of large modern 'factories' in 'green fields' which bring in their own infrastructure, manpower and services, and sometimes their own raw materials, all unrelated to either the needs or resources of the rural locality. The economic considerations and threshold levels for establishing such industries in particular suburban communities, or such unrelated rural industries, are quite different.

2.10 On the otherhand, rural industrialisation should not be too narrowly conceived as concerned with promotion or improvement of only rural artistic crafts (largely traditional e.g. textiles and carpets weaving) with the inclusion of certain services trades (e.g. carpentry and smithy, which are also traditional), to the exclusion of all 'modern' or 'powerised' industrial activities. There is a body of opinion which considers the implantation of modern large or medium-scale industries in rural areas as not strictly a programme of rural industrialisation, or as undesirable and uneconomical. Undesirable, as it brings in a 'foreign' activity into rural areas at a technological level not in keeping with the rural milieu. Uneconomical as it requires a thinning out of industrial infrastructure to small communities. A strict and absolute exclusion of large or medium scale industries from such a programme does not seem desirable. It is suggested that programmes for placing of industries in 'green field' areas requiring the setting up

of a new community, and using none of the rural material or human resources, or not meant to serve any rural need of the neighbouring communities, be considered as part of national programmes of industrial decentralisation or dispersal and of regional development. On the otherhand, programmes for locating industries in rural communities by either using rural resources of raw materials or labour, or for serving a rural need, irrespective of whether they are medium or small in size (large-scale[a] being mostly precluded), should be considered as part of rural industrialisation programmes. The greater the integration of the resources and markets of such enterprises to the communities within which they are placed, the greater is their positive contribution to the welfare of such communities in both economic and social terms. The cleavage grows as the percentage useage of the rural labourforce at various levels (unskilled, skilled, supervisory and management levels) declines, i.e. elements from outside are brought in which result in social stratification and use of manpower having little interest in rural areas, who also send their incomes outside the rural areas.

c. Rural-Urban Continuum and Inter-dependance

2.12 Rural development efforts so far have one basic flaw in that there is a total compartmentalisation of rural areas, in the planning and implementation process on the understanding that they exist on their own or in a vaccum as it were. The rural-urban dichotomy in such programmes has always been a rigid one. Secondly, rural development efforts are often seen as an exercise in developing self-sufficiency of each village individually, almost on a theoritical Gandhian model. The whole question of inter-dependance as between neighbouring villages,

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a. It is agreed that the terms "large", "medium" and "small" scale are somewhat vague unless criteria to define them are also indicated. Such criteria will necessarily differ from country to country. In the context of rural industrialisation discussed earlier, the term "large" may be used to indicate generally an enterprise requiring a workforce exceeding the normal availabilities of manpower from a cluster of villages of average size in that country, thus requiring a new community to be set up for the enterprise.

and the lead role of certain villages in a cluster, and the linkages which exist or can be usefully developed with higher order centres in a continuum of settlements extending outside the strictly and legally defined bounds of rural settlements into urban settlements, each having its own service specialisation and areas of influence, were kept out of consideration in such programmes.

2.12 It is in this respect that the traditionally designed 'integrated rural development programmes' cannot be easily adapted to rural industrialisation programmes of the type described earlier. The type of integration so far attempted in such rural development programmes is largely functional and administrative, i.e. integration of all economic and social activities affecting rural populations (education, health, agriculture, industries) through a staffing and leadership pattern. But the spatial nature of integration of these activities, i.e. their viable locational considerations, the development of a hierarchical pattern of servicing and consideration of the problems of dispersal and concentration, which is the other aspect of 'integration', did not receive adequate importance. Rural industries development planning has major spatial components and without such a component, rural industries will always consist of promoting household or craft-level types of activities to bring about self-sufficiency at each individual village level, or continuation of traditional crafts which have long established market linkages. Even the servicing of such craft activities through common facilities cannot be considered rationally without such spatial considerations.

2.13 It is only very recently that the spatial aspects of such integration have been brought into consideration in some rural development programmes. In India, for example, the spatial aspects have been brought into the planning process through what is called "Growth Centre" planning often going beyond the Development Block level. Certain pilot studies were undertaken in relation to the Fourth Five-Year Plan (1969-74). But this concept, while it has been examined extensively, it has not reached a state of extensive national application. In Iran, an attempt has been made to consider the spatial aspects through the setting up of

what are called "Rural Development Centres" in the Fifth National Development Plan (1973-77) and 1,200 such centres are planned and 300 already established, but this is only a first level in the rural-urban hierarchy of centres (or the concept of a 'central village') and no continuum in this hierarchy has been considered. Whereas each Development Block in India comprises on an average of over 100 villages with a population of 90,000-100,000, the Rural Development Centre in Iran comprises of about 10-15 villages in a periphery of 15-20 kms and a population of about 12-17,000.

2.14 The other aspect of spatial planning in relation to development of rural areas, is the manner in which such plans are related to national plans. Sectoral plans do not provide answers to specific needs and possibilities at grass-roots level. One or several intermediate levels of planning activities are needed to provide the links between bottom-up planning and top-down planning. Therefore 'regional planning' and possibly 'integrated area planning' are necessary steps in this process. Spatial planning in connection with rural development programmes and particularly the industrial component in such programmes, will suffer in quality where regional planning structures and activities have not been adequately developed, and this would apply more to the development of the rural non-farm sector and rural industries in particular. In India, the Sixth National Development Plan (1977-82) will emphasis 'Block-by-Block' planning for about 5,000 rural development blocks[a]. as the rural industries component in the rural sector of the Plan is proposed to be substantial. However, it is well recognised that the human, and financial resources required to take up regional development planning and implementation precludes its application on a national scale at any one time, however theoritically attractive it may seem.

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a. The Hindustan Times, New Delhi, in its issue of 11 Oct.1977 commenting on this decision in an editorial, stated that "area planning will for the first time gain priority over sectoral planning".

d. Factors Promoting or Inhibiting Rural Industrialisation

2.15 It has often been argued that improvement in agriculture is essential to the development of rural non-farm activities. On the other hand it is also seen that the regions which are poor in agricultural prospects have a greater need for developing alternative employment opportunities through industrial activities. What is therefore essential is to consider the maximum extent and greatest variety in the development of agriculture, forestry, animal husbandry, fisheries, as is possible in an area. Too often a community is engaged in the production of a very limited range of agricultural products. It has been seen that diversification in agriculture can be achieved in most regions with a little effort. Field crops can be diversified from grains, to oilseeds and fibre crops. A great variety of tree and plantation crops can be introduced (tea, tobacco, nuts, fruits, dates, grapes, etc). Vegetables and flowers on a commercial scale can add to this variety. Livestock, fish, poultry and other animals can be taken up for rearing and marketable production. This is the starting point for diversification of the rural economy, which helps provide a sound resource base for rural industries. Quite often, an area poor for grains production can be good for animal husbandry or poultry. On the otherhand, if the raison d'etre for the continuation of a rural community in a particular location is established, and there is little prospect for developing an adequate agricultural resource base to provide adequate levels of employment, then there is no reason why importation of the necessary raw materials from neighbouring areas cannot be considered, so long as the entire operation is economic.

2.16 Secondly, whereas the need for employment creation exists, industrial activities require certain types of skilled and educated manpower often not found in rural areas. Facilities for their education, training and development, are often found only in urban centres, and therefore rural industralisation efforts have to await the more widespread development of these facilities. The alternative to this is that, only such manufacturing activities may be introduced initially,

which could use manpower of the levels and categories of skills available in such communities. As specialisation in the economy grows, the urban sectors tend to prefer institutionally trained persons, and the rural sector relies on persons from the informal training system. As rural agricultural and industrial activities improve in technological levels and in complexity, they require organised training programmes often different from those available in urban areas and these need to be part of the rural development effort.

2.17 Rural industries require certain types of infrastructure which is often costly. Economies can be effected in this infrastructure if for example they are required in common with other rural sectors. For example, electricity may be required for agriculture as well as industries. In other cases economies can be effected by clustering of industrial workshops or establishments such as in the pattern of industrial estates or workshop clusters. Where the provision of a particular type of infrastructure is costly at a particular level of villages, it may prove economical at the next higher level in the hierarchy.

2.18 The recent reorientation of rural development programmes to benefit the rural poor, when seen in the context of the feature of participation of rural people in the planning and implementation process of integrated rural development programmes, presents certain problems. Rural areas normally have entrepreneurship related to agricultural activities, and where such entrepreneurship has emerged for industrial or commercial activities (other than in household level activities), it is mostly among the more prosperous elements of the rural society, and not among the rural poor. Therefore the entreprise structure for rural industrialisation programmes to benefit the rural poor has to be very carefully considered and enterprise forms such as cooperatives, may have a special role to play. On the other hand cooperative enterprise forms are known to be slow moving and not risk venturing particularly in respect of new types of productive activities. In most developing countries government agencies have had to closely help, guide and even

supervise cooperative enterprises. In some places rural industrial activities have been combined with farming or agricultural cooperatives. The general experience in such a case has been, as in Iran, is that the benefits of rural industrialisation go largely to the farming community and not to those outside it. In some other places, village politico-administrative institutions such as village councils (or 'panchayats' as in the state of Orissa, India) have been used as ownership and management bodies for rural industries in order to spread the benefits more widely to the community, but this practice has not been so successful as these bodies do not have any expertise or interest in the management of market-oriented productive activities. The extent to which the more enterprising elements of the rural population may have to be brought in for accelerating the development process, and the manner in which the various cooperating components of rural society will share the responsibilities in and gains arising from rural industrial enterprises, will differ considerably with varying socio-cultural traditions. The experience todate is limited, and no standard solution seems to have emerged on a global basis.

2.19 Finally, as rural development programmes increase their depth of concern and activities in a variety of productive and social sectors, they become organisationally more complex and difficult to plan, implement and manage. In turn they require higher levels of competence at each level of implementation than single sector programmes because of the problems of coordination and integration. Rural industrialisation requires the injection of a new category of professional competence at field level and a new set of back-up institutions than are found in programmes largely concerned with the agricultural and social sectors. Half-hearted measures in providing these elements, will lead to poor results.

III. TYPES OF INDUSTRIES SUITABLE FOR RURAL AREAS

General Considerations

3.1 The selection of industrial activities which may be considered suitable for promotion in rural areas may be based on several considerations. In this selection process, rural raw material resources, rural manpower and rural markets are the prime factors for consideration. There will be situations in which the processing activity may not be based on resources of the rural community in question (such as in small enterprises in the metal products group), and there may be situations when the product in question may not be intended solely for a rural market (such as in the case of some artistic crafts or some large or medium sized food and fibres processing industries), but the factor which is absolutely essential to place an enterprise in the 'rural industries' category, is whether it uses rural manpower from the locality concerned. Thus most rural industrial enterprises will either use rural material resources and/or their products and services will be intended for a rural market, and in any case will use manpower largely from the rural community in which it is placed. There may develop situations, where neither any rural raw materials are used or the product is not meant for the market of the rural neighbourhood, such as small or even craft enterprises in rural areas producing components for largescale industries in urban areas, but such a situation requires a sophistication which has to await a later stage in the development process.

3.2 Rural industrial enterprises like urban ones also, need not be considered solely in terms of aggregated production facilities. A milk plant may consist of a large diary farm along with the processing facility, or it may consist of milk collection from various small farms and a common processing unit. Similarly silk cocoon production

can be done in small units or in large ones, but cocoon drying and reeling undertaken in larger units. The commercial economies of scale and the technological economies of scale in the various component activities of an industrial process are often quite different. There is therefore a variety of techno-economic possibilities of organising industrial production in the rural sector and a rigid pattern of large or medium enterprises development may not be a healthy approach. The characterestics of the workforce in regard to their knowledge and skills and their trainability, the type of infrastructure available, and size of the market to be served, often determine the parameters of size and technology to be used in rural industrial processes.

3.3 Categorisation of industries suitable for rural areas may be done in various ways. The following is a suggested pattern to facilitate discussions and consideration:

a. Rural Service Industries i.e. those servicing the needs of agriculture, crafts and manufacturing industries of the locality, rural transport and infrastructural facilities, and resident community needs.

b. Rural Crafts Industries including common facility enterprises for such crafts.

c. Rural Agro-based Processing Industries for processing field crops, horticultural products, animal husbandry and poultry based products, forestry, based products and fishery based products.

d. Other Rural-Resource-Based Industries such as clay, minor minerals and building materials.

e. Non-Rural Resource-Based and Sub-contracts Derived Rural Industries.

3.4 The actual selection of industrial activities for each region or locality will vary somewhat from region to region and country to country depending on the state of development of rural infrastructures in general, on national communication networks, on the characterestics of the region (largely ecological characteristics), on the extent of raw material resources, manpower and size of market.

Rural Service Industries

3.5 Basically there are two types of service industries, the first type is strictly not manufacturing but is meant for the provision of technological services of repairs and maintenance, with some manufacture of parts and components mostly on a job-shop basis as a corollary to the technological services rendered. The second group consists of units engaged in manufacturing activities as an input to the various rural sectors and units which are sometimes called "trades-industries", i.e. manufacturing is carried out in shop-fronts (e.g. tailoring, dress-making) or behind the retail store front (e.g. baking, laundering). Sometimes classifying these enterprises mistakenly as shops and commercial establishments, deprives them of development assistance.

3.6 One component of these service industries, is for agriculture involving repairs and maintenance of tractors, earthmoving equipment, ploughs, sprayers, pumps, etc. Where agriculture is carried out in the traditional manner without mechanisation, these 'service' enterprises also undertake extensive manufacture of simple tools and implements required in the locality in addition to repairing them, such as ploughs, spades, pickaxes, sickles, water lifting devices, etc. As new agricultural technologies are introduced, these services have to become more sophisticated. Often the more complicated services emerge in higher-order rural centres. The lack of these services can be a constraint on agricultural development and their promotion on

a technologically and spatially rational pattern can go a long way to improving agriculture itself.[a] In addition to repairs and maintenance services, certain other industries can and are being carried out in rural areas, as inputs to agriculture (such as fertiliser mixing and bagging units, insectisides manufacturing units, making of ropes, twines, containers and packing materials).

3.7 The second category of technological services is for rural crafts and small manufacturing activities of the locality. Traditionally these services exist for the manufacture and repairs of looms, carding and spinning devices, ceramic and pottery equipment, wood and cane working equipment, etc. As more rural industries are introduced, these services need enlarging and upgrading. The third category of services is for rural transport and infrastructural facilities such as for repairs and maintenance of carts, bicycles, trucks and buses, and for operating and servicing water supply systems, electrical generation or transformer stations, etc. The fourth category of services is for repairs and maintenance of domestic equipment and meeting domestic needs for products and services. As affluence grows, a larger range of equipment and hardware gets introduced into rural homes, such as furniture, stoves, heaters, coolers, refrigerators, sewing machines, knitting machines, etc., and if maintenance facilities are not available within economic distances they have to be carried to distant places for such services. Moreover demand for services such as those of laundering, shoe repairs, tailoring, etc. grows rapidly with increase in incomes.

3.8 As far as rural areas are concerned, these services are less differentiated in terms of their content the smaller the size of the community, and get more specialised at higher-order-centres. In smaller villages, a metal working shop often services the needs of agriculture, crafts and transport equipment. Therefore, one means of promoting these services is to offer training facilities to rural youth, specifically

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a. The F.A.O. has prepared for some countries detailed plans for setting up a variety of sizes of agricultural machinery servicing workshops, providing services differing in range and complexity, and located in agricultural communities of different sizes.

geared to these needs, and offer them credit to start service ventures. It is seen in several studies that these enterprises come into existence if the volume of demand for such services is considered adequate, which in turn depends on the size of the community and their income levels, and not because a certain type of infrastructure is available. The type of infrastructure existing in a locality determines the technological level at which these services are carried out. It is also seen that among all the categories of rural industries discussed here this group has the largest potential for growth and employment creation. Indian studies have indicated for example that a farmer on an average lost 10-12 days of machine time during the busy season, because servicing facilities for farm machinery are not adequate.[a.] The Iranian study indicates that the manpower presently engaged in these service activities need to be doubled atleast to bring the availability of these services to an acceptable level. At present they engage about 5 percent of the rural non-farm labourforce.[b.] Their intensification not only expands employment but also meets a basic need. It is also known that the development of most of these activities have a multiplier effect on each other and on productive activities in rural communities as a whole.

Rural Craft Industries

3.9 A variety of rural crafts are traditionally produced in rural areas, some of which have a rural market and some of which find urban, touristic or export markets. It is seen that those crafts which meet a rural need, are largely sheltered from urban competition if communications are poor. They are also much more sheltered than rural crafts produced for urban needs, where tastes and value systems change rapidly with economic development. Where large numbers of rural people are engaged in such enterprises, it is

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a. Manpower Development in Rural India, Institute of Applied Manpower Research, New Delhi, 1977, pg. 11.

b. P.K. Das, op.cit. pg.44 and Appendix I.

essential that these productive activities be maintained or enlarged by product redesign, improvement of quality, reduction of costs, etc., the main objective of such efforts being to retain the use of the skills existing and produce a saleable product.

3.10 It is often seen that crafts which provide full-time employment, and have an urban market, tend to move easily into the cities, whereas those which tended to provide part-time employment particularly among family workers, even though the product has basically an urban market, tended to remain in the villages. One of the basic criterion for selection of crafts in regard to their rural or urban location is the extent to which market linkages are important. If the product is one which has basically an urban or export market, and is subject to frequent changes in product design and specifications with varying consumer tastes, then strong market linkages will need to be developed in order to retain them in rural areas otherwise it will move easily to urban areas.

3.11 The policies needed for crafts development as such, are too well known to be repeated here. But a few of the additional activities in a rural crafts development programme which may need emphasis are listed below:

a. Attention to the improvement of supply and quality of bulk rural raw materials used in large rural crafts, and steps to reduce their costs, e.g. raw wool, raw silk, etc.

b. Development of equipment and tools for a gradual process of technological modernisation of these crafts, and developing certain common facilities to improve their economic viability.

c. Establishment of means by which the producers can be advised on design changes and preferences in the market, particularly if the markets are distant urban markets, and assistance in adaptation to new designs.

d. Crafts which are promoted as part-time or seasonal activities should not be ones which require extensive training effort as the skills developed will be underutilised.

Rural Agro-based Processing Industries

3.12 These are industries which process agricultural products. They are not confined to grains only, but comprise largely in the processing of:

a. Field crops: grains, oilseeds, fibre crops, etc.

b. Tree and Plantation Crops: fruits, nuts, grapes, tea, tobacco, etc.

c. Vegetables, flowers and spice crops.

d. Products of animal husbandry, poultry farming, inland and marine fishing, and other animals rearing for skins, fur, etc.

e. Products of forestry and wild life.

A large variety of processing activities may be undertaken from this resource base.

3.13 There are three characterestics of agro-based industries which need to be taken into account in developing a programme for rural industries promotion, viz:

a. The processing activity may consist of several stages before a product reaches the final consumer, such as wheat is ground into flour at one stage and made into bread at another stage, hides and skins are cured at one stage, tanned at another and made into leather goods and shoes at a third stage. Quite often, the dividing line between the end of the agricultural activity and the start of the first stage of the processing or industrial activity cannot be differentiated and enterprises often cover both the agricultural and industrial activities, e.g. cotton production to cotton ginning, cow farm to milk production and milk pasteurisation, sheep ranching and wool production, chicken farming and their slaughter,

dressing and packing, etc. etc.

b. There are essentially two categories of processing activities which are often considered for rural industries promotion, particularly as it applies to food product industries, but also include some other selected products as well. The first category of processing is for a local community. Thus wheat has to be milled into flour for local needs, edible oil has to be milled for local consumption, milk has to be pasturised for local requirements, etc. They do not have to be sent out to centrally located large plants for processing and sent back again for redistribution in original areas of production, though this does happen as economic activities become more specialised. The second category of processing is in large-to-medium sized plants meant to serve a larger market. As is evident, the technological levels of these two categories varies considerably. The first category of activities have to be located in villages in any case, but the location of the second category of activities in rural areas depends on the industrial locational policies of each country. Both these categories require promotional efforts.

c. The third feature is that a number of by-products arising out of agro-based industrial processing activities are required in rural areas, and therefore there is an incentive in their extraction and utilisation if these establishments are located in rural areas, e.g. wastes arising from vegetable oil-seeds pressing, slaughter house operations, grain mills, sugar factories, etc.

d. A fourth characterestic of some of these industries is that since they use an agricultural product, and some of these may not store well, the processing activities are required immediately

after the agricultural season and therefore continuity of employment for the agricultural labourforce may be ensured if these activities are located in rural areas. The greater the persishibility of the product, the greater is its processing need in rural areas. It is only in respect of agricultural products which have long storage life, or facilities are developed for their storage (which is a rural industry by itself) that year-round processing activities are possible.

3.14 As stated earlier, the wider the variety and diversification of the agricultural sector and the greater the product range, the greater are the possibilities of promoting these rural industries. Moreover, where large central processing operations are economically more appropriate because of proximity or geographical concentration of markets, there are still a large number of preliminary processes which can and need to be efficiently carried out close to the primary production localities, e.g. curing of hides and skins before tanning, logging and saw mill operations before wood product industries, cleaning and grading operations before preservation activities, etc. It needs also to be remembered that the ecological conditions largely determine the types of products available for processing. An intensive agricultural area provides grains, oil-seeds, fibre and fruit crops for processing. In an area abounding with forests, wood industries, bamboo-reed-cane product industries, spices, herbs, barks and tanning materials, lac, honey and a variety of related product industries could be considered. A pastural area provides animal products of milk, hides and skins and animal fibres for processing. An area close to the sea provides marine products for processing.

Other Rural-Resource Based Industries

3.15 There is a wide variety of other rural resources which are or can be transformed into products for use in rural or urban

areas.These categories exclude the extraction and processing of major minerals (available in non-urban areas) which require sophisticated technology, specialised management expertise and often its own township and a new community, though large numbers of rural labour are also attracted into these industries. The industrial and mining activities in this group include:

- stone quarrying, crushing, grading, pulverising, cutting and finishing to blocks, slabs and chips.
- sand collecting, washing, grading.
- clay pit operations.
- mineral pigments extracting, grinding, cleaning.
- rock-salt mining, cleaning, grading; solar-salt pan operations.
- gypsum and lime mining, crushing, burning.
- other minor minerals mining.
- semi-precious stones mining and gem-pit operations.
- manufacture of building materials: bricks, tiles, cement product.
- manufacture of pottery and ceramic ware.
- manufacture of glassware, beads, etc.
- shells processing into fine lime, shell products, etc.

3.16 Quite often the existence of these resources is evident, being visible from the surface, but sometimes specific prospection activities reveal their existence. However, unless an activity has been traditionally carried out, or urban entrepreneurs have taken the lead in developing some of them for urban markets, local entrepreneurs either do not know how to proceed or do not have the resources and skills for this work and therefore specific development efforts are required.

Non-Rural Resources Based and Sub-Contract Derived Industries

3.17 There are a variety of industries which can be and have been promoted in rural areas in several countries, which do not use rural raw-material resources and the products of which may or may not have a rural market. The main reason for such a development is to use cheaper and easily available labour and land and buildings at low cost. Some of these manufacturing activities can be at the craft or small-workshop level and some can be medium sized establishments, using specially developed skills. An illustrative sample of such activities are given below:

- manufacture of candles from paraffin.
- manufacture of cement products.
- manufacture of textile materials with mill-made yarns.
- manufacture of hosiery goods and jersey fabrics from mill-made yarns (cotton, wool, silk, etc.)
- manufacture of tailored linen goods for hospitals, hotels, etc.
- manufacture of musical instruments, sports goods costume, jewellery, etc.
- manufacture of components for bicycles, sewing machines, small machinery, etc. on sub-contract from large urban enterprises.

3.18 Components manufacture on sub-contract has one big advantage in that the producer of components does not have to undertake a sales effort, but quite often it is seen that large enterprises use such suppliers to cushion their losses which may arise from major market fluctuations in demand, and rural producers of components are at a great disadvantage as they have no contact with alternative outlets.

IV COMPONENTS OF A PROGRAMME FOR PROMOTION OF RURAL INDUSTRIES IN INTEGRATED RURAL DEVELOPMENT PROGRAMMES

General Factors

4.1 The nature and structure of an integrated rural development programme and the resources allocated to it as well as the problems facing the rural communities covered by such a programme and the material resources of the area, will largely determine the size, content and framework of development of the rural industries component. As discussed earlier, it has to be ensured that an integrated rural development programme has:

a. a well defined objective in terms of the target group(s) to whom the programme is largely directed,

b. a sound institutional base for surveys, planning and consultation, i.e. its programmes are based on adequate surveys and studies of the area; plans drawn up by taking into account the financial, physical and manpower resources likely to be available; and people to be affected are consulted and brought into the planning process;

c. there is a smooth-working coordinating structure to mesh the inputs from various sectorial government agencies, in which leadership on various component activities are well recognised;

d. in each component activity there are adequately trained extension agents (single-purpose or multi-purpose) with back-up organisations and services; and finally

e. there is adequate spatial planning of the area to be undertaken as part of the programme and a well conceived infrastructural promotion in a spatial hierarchy of settlements.

4.2 There are several elements of macro policies which are likely to have a major impact on rural industrialisation programmes. The first is a legal and promotional disincentive to concentration of all types of industries only in the major metropolis, large cities or population centres, coupled with a well directed 'decentralisation' programme i.e. a programme to promote development on a geographically dispersed basis and to develop administrative structures at the peripheries. It is the experience of several countries that such a two pronged approach first pushes industries to provincial and district towns, and ultimately helps push certain types of industries to rural growth centres. The first step only i.e. a ban on industrial concentration in major cities, will not bear the desired results, because industrial development requires certain incentives by way of infrastructure. 'Decentralisation' programmes help develop these infrastructures on a geographically dispersed basis and thus provide the incentive at the other end.

4.3 The second element of macro-policy relates to technological characterestics of industries to be promoted. If a major national bias is given to large-scale technologically sophisticated industries, using mostly imported plant and equipment, a trend towards centralisation in manufacturing will develop. If however, a meaningful bias is given to indigenous-equipment-based industries and indigenous manpower and management, then industrialisation will grow at the level of technology more easily understood by the masses. Rural industrialisation at such a level of technology will have a multiplier effect on the machine-building industry of the country because it will not mean a demand for one or two items of sophisticated equipment, but a demand for hundreds of more easily produceable items of equipment.

4.4 Industrialisation at any level, urban or rural, requires a resource base. The resources may be agricultural (including livestock, forestry, fishery, etc.) and mineral. Therefore there must exist at

at the national level, policies and programmes for the extensive development and exploitation of these resources, and institutions and manpower to carryout these programmes. As discussed earlier, a rural development programme takes off largely from a well developed agricultural base, such a programme cannot be forseen in a vaccum.

4.5 Finally, though as a concept, rural industrialisation is attractive, industrialisation cannot be pushed into rural localities in all countries, particularly in those in early stages of development where even urban areas have limited physical and human resources infrastructure for industrialisation, and much less so in rural areas. In such countries, diversification of the rural economy has necessarily to be at the craft and household enterprise level. But in countries which have advanced somewhat in socio-economic development, a wider range of rural industrial activities is possible. It is necessary to understand the stage of development reached in the country in order to arrive at an appropriate programme. All rural development involving diversification of the rural economy and upgrading of economic and social infrastructure in selected localities in the rural milieu, has ingrained in them the seeds of urbanisation. Thus urbanisation and industrialisation go hand-in-hand, and urbanisation seen in this light is something to be welcomed. It is the development of large urban agglomerations with their social problems which are unhealthy trends in this process. Therefore a properly concieved urbanisation policy or low-level urbanisation as it is sometimes called or urban inter-penetration of rural areas, can be an asset to rural industrialisation. Such an objective can be ingrained into integrated rural development programmes.

Entrepreneural, Ownership and Management Structures

4.6 As discussed earlier, entrepreneurship particularly for rural industrial enterprises, is very limited and more so among the poorer segments of the rural population. Therefore the role of localing

development possibilities in the industrial field, and promoting ownership institutions, falls very much on the shoulders of Government agencies. Rural development projects need to have expertise components not only for surveys of resources and markets and planning of industrial enterprises, but also for motivating and developing group ownership. The situation should not be viewed as too depressing in terms of total lack of availability of entrepreneural talents, because it is well known that it is the rural migrant to big cities who starts the pavement shops and small workshops after having worked in another for a short time. It is often the opportunity which creates the entrepreneur.

4.7 Ownership is linked to capital availabilities among the group. This is a major constraint as far as the rural poor are concerned. Programmes for overcoming this problem have been tried out in various countries, mostly in the form of credit. But here also most credit schemes are based either on collateral or require close supervision of credit usage (supervised credit). The latter arrangement increases the cost of credit servicing and these additional costs are often subsidised under government programmes. A novel scheme tried out in a state in India is to use a village award as the seed capital for rural industries enterprises. Another novel scheme in operation in Turkey for rural industrial ventures is the setting up of Credit Guarantee Cooperatives, where a whole rural community helps in guaranteeing the credit extended to one of its members, and therefore exercise a watchdog role.

4.8 Several studies have shown that financial capacity and ability to mobilise financial resources have a major part to play in observed patterns of entrepreneurship development[a]. Credit schemes and financial support by subsidising or making freely available results of surveys, feasibility studies and physical

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a. Manpower Development in Rural India, op.cit. pg.12.

planning of industrial enterprises can go a long way in promoting entrepreneurship. In regard to credit schemes, in some countries as in India, credit servicing of rural industrial projects is done by banking and credit institutions serving the small industries sector, but in some other countries as in Iran, this is mostly done by institutions serving the agricultural sector. Credit requirements and arrangements often vary considerably between the agricultural and industrial sectors, and very often it is observed that agricultural credit institutions cannot adequately service the needs of industrial projects and proposals. Whether rural development banks can be developed to service multi-sectoral rural development needs is yet to be tried out on a large scale.

4.9 One of the weaknesses of existing rural crafts or industrial activities is the dominance of middlemen, which situation tends to keep wages and earnings of producers down and prices of products high. Though in some cases such middlemen perform an useful entrepreneural function in undeveloped regions. In the agricultural sector, major changes in the ownership institutions have been carried out through land reforms often implemented against strong opposition of vested interests. In the rural industrial sector however, it is not so much reorganisation of the ownership of productive facilities, because these are invariably small and owned by producers, but it is the reorganisation of the facilities for producers to directly reach the market both at the raw materials end and and the final products end, which is called for. This is often brought about by organising service cooperatives.

4.10 Reorganisation of ownership patterns or creation of new ones through the introduction of cooperatives is a fairly common approach in rural industrialisation programmes. However several alternative arrangements within the cooperative structure need to be carefully considered. Firstly, industrial activities may be

linked to well established agricultural cooperatives. Here, the advantage is that existing management personnel can be used and savings in overheads effected. But it is often found that such cooperatives do not take an interest in all types of industrial activities unless it relates to the processing of an agricultural product of the cooperative. Moreover, members of the rural community who are not agriculturists do not benefit from such an arrangement. Secondly, questions of whether a given processing activity should be organised as a cooperative of agricultural producers, or as a cooperative of industrial processers or producers who use the agricultural product as an input, often presents problems.

4.11 Formation of single primary cooperatives at each village level covering all types of production, consumer and credit servicing, and marketing assistance, is favoured by many as it does not split up the residents of single villages in membership of different primary cooperatives. But experience shows that such membership leads to complications due to the variety of products and services handled and question of dividends. Several countries are having separate cooperatives, vertically integrated (in the form of unions and apex bodies) for major industrial activities such as textiles, ceramics, carpets, etc. not linked to agricultural cooperatives.

4.12 The experience to date on ownership institutions is limited and single global answers to this problem are not available. However it seems, that a variety of ownership institutions could be used in the rural sector. For example, ownership in the service group of activities can mostly be individual and private, as they are largely 1-3 man workshop-type of enterprises. They could have service cooperatives for grouping supply of spare parts or common supplies, or for credit, etc. Agricultural processing activities can easily form part of agricultural production cooperatives, provided other workers

brought into these processing activities are also entitled to membership rights. Craft activities can also be organised as cooperatives (either as production cooperatives or as service cooperatives) particularly if they are large craft groups, and vertical institutions of unions and apex bodies developed, if the activity is nationwide. Other rural industries of small to medium scale could be privately owned or if meant for the weaker sectors of society, could be either government owned and managed or made into workers production cooperatives, but each type has its advantages and shortcomings.

4.13 Management structures of rural industrial enterprises are basically the same as those existing in small industries, i.e. there is lack of specialisation,and the functions are mostly carried out by a single person, the working proprietor. But in cooperative institutions, because of the delicate problems of accountability, procedures become cumbersome than in a father-son type of enterprise. Special management development programmes are necessary, geared to the level of management personnel existing in rural enterprises. Very often it is found that when the rural enterprise is a sophisticated one requiring management knowhow not normally found in a rural milieu, and persons are hired from outside the community, they tend to reside in neighbouring urban localities and commute to work. The problems of such enterprises largely arise due to absentee management. It is not uncommon in the two countries studied, for the government to provide management assistance in the initial years of the establishment of medium-sized rural industrial enterprises. But in such cases, if the placement of such an external management hand is not linked to the training of preselected persons from the locality, the practice tends to perpetuate itself.

Infrastructural Requirements

4.14 Industrial activities require certain types and certain minimum levels of infrastructure. This consists of three components, viz: (a) physical (roads and transportation power supply, water, repairs and maintenance services, etc.) (b) commercial (postal and telegraphic communications, banking and credit, etc.), (c) human resources infrastructure (manpower of required skills, knowledge and experience). Some of these requirements are common with other sectors of the economy, for example roads are required to transport agricultural produce to markets as much as industrial produce. Most of the requirements change considerably in sophistication depending on the size and category of rural industry, i.e. they are not required to the same extent in all types of situations. Governments can have a major hand in directing the outlook of infrastructural services towards the needs of rural areas. For example banks and credit institutions normally tend to service the needs of urban communities only, and where governments through various measures have forced them to look outward, as in India, they have found business in rural areas fairly rewarding.

4.15 One type of integrated infrastructural institution has been tried out in several countries, viz. the rural industrial estate. Like its urban counterpart, such an estate provides lands and buildings ready for occupation in a concentrated location, which helps in reducing the gestation period of small-to-medium sized enterprises, reduces their fixed capital requirements as these premises are often available on rent, costs on electricity, water, gas supply are reduced because of concentration, common commercial facilities of banks and post offices are often made available, and possibilities of inter-servicing between the various units in the estate are a great advantage. However, experience till date on rural industrial estates is not very encouraging. It is largely the suburban ones which have

succeeded and not the real rural ones. Some of the reasons for this lack of success are (a) lack of enterpreneurship in the community, (b) lack of a skilled manpower base, (c) poor advisory servicing from the government agencies concerned in regard to what industries are possible, and (d) poor location in regard to the communication system of the area.

4.16 Alternatives to this infrastructural institution are being tried out. In Iran, a beginning is being made in setting up "workshop clusters" in growth-potential villages. The idea is the same as an industrial estate, but the "workshop clusters" are meant for location in the heart of the village and intended to house servicing and craft activities which service the needs of that village and nearby villages. Repair services for agriculture, crafts, etc. common facilities for major craft activities of the area, and improved type of bakeries, launderies, tailor shops, metal workshops, etc. are intended for these clusters. Larger sized rural industries are meant to be located on farming estates or in rural locations on main road arteries connecting important urban localities. In some places, craft estates or craft workshop clusters have been tried out, but due to a traditional preference of craft workers (particularly if they are women) to work in their homes, success has been limited.

4.17 However, in addition to a policy of sub-concentration of rural industrial activities in selected growth-potential villages, concentration of several industrial and craft activities on a site has inherent advantages inspite of its apparent failure to date. Much more experiementation is required to arrive at suitable forms of locational concentration and clustering to give a boost to programmes of rural industrialisation and an integrated area planning approach can provide useful leads.

Manpower and Skill Requirements

4.18 One of the major constraints to rural industrialisation is lack of adequate knowledge and skills. Even craft improvement programmes have had difficulties as basic understanding of improved methods and processes requires some degree of education. The complexities of modern farming have made literacy and certain levels of education a must. Civil work contractors working in rural areas have prefered to bring in semi-skilled workers from urban areas with them because of the lack of understanding of simple instructions by rural workers on such works. Educational facilities are in general less developed in rural areas than in urban ones and this seems to have been the main problem.

4.19 However the process of filling the gap must start from where we are, in the sense that large masses of rural people have almost no formal education or very little of it. Various alternatives have been tried out, in the names of "functional literacy", "technical literacy", etc. Wherever such programmes exist, it is necessary that they be closely inter-woven with vocational training programmes for rural youth.

4.20 Several studies carried out both in India[a.] and Iran[b.] indicate that there are major differences in the type of skills required in industrial enterprises as between urban and rural areas. The skill demands in rural areas both in manufacturing and technological services are what are called "broad-spectrum skills" or "composite-skills". The normal type of vocational training institutions offer training in trades such as welding, bench-fitters work, turning, milling, joinery, etc. While these trades fit into the requirements of modern large-scale industry or specialised repair shops in urban areas, they are much too specialised for the plying of a viable trade in rural areas. In Iran, six broad-spectrum trades have been

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a. Manpower Development in Rural India, op.cit. pg 14

b. Studies carried under UNDP-ILO- IRA-72-009.

developed for the Rural Vocational Training Centres, and in India a revision of trade content to meet the needs of rural areas is in process.

4.21 There is also a general preference for informal methods of training and on-the-job training, in rural areas partly because it overcomes the problem of lack of formal education as an entry qualification, and secondly because it is less costly. But all such training is not comprehensive and systematic and lacks consistency in standards of achievement. Therefore the ex-trainees have little possibilities of mobility both horizontally and vertically.

4.22 Over and above this, there are hardly any systematic operatives level training facilities such as for tractor drivers, truck drivers, cement mixer operators, processing machinery operators, etc. As agriculture is upgraded in technology, and new industrial activities are introduced in rural areas, the need for these types of training will increase. If enterprises are to organise such training activities themselves, then it becomes an unnecessary burden. In such cases, schemes for subsidising training costs incurred by industrial enterprises are necessary. The shortage of facilities in supervisory and management development programmes are still more acute in rural areas excepting in countries which have a well developed cooperatives department.

4.23 Considering these shortcomings in training as applicable to the needs of a rural industrialisation programmes, there is no escape from governments taking the necessary steps to organise training programmes to meet these needs. Rural education and training requirements need to be examined in their entirety and as different from urban needs. The Indian study on rural manpower suggests that

for meeting rural needs, after a certain basic level of formal education, there should be three separate streams: one catering to the academic courses, the second catering to the needs of farm and allied sectors largely through agricultural polytechnics, and the third catering to the needs of the rural non-farm sector largely through vocational, crafts and technical schools. It further suggests that the objective of the facilities developed in respect of the second and third streams is to ultimately extend the skill development opportunities on a part-time basis to the large majority of the rural workforce in both the farm and non-farm sectors to improve their skills and improve their earning capacity. What is therefore necessary from educational and training institutions is not only development of "composite skills" mostly required in rural areas, but also to some degree the inter-mixing of organised training courses with work experience. All this means that rural education and training institutions need to respond much more closely to the nature of manpower demands expected in the region. Integrated area planning and integrated rural development programmes could easily provide the framework for such action.

e. Government Promotional Agencies

4.24 A key factor in promoting a programme of rural industrialisation is the type of government services offered and how they are organised within the framework of an integrated rural development (IRD) programme or outside it. In India such promotional work is organised within the framework of IRD Programmes (Sometimes intensive area or special area programmes), but in Iran since there is no IRD programme as such, the industrialisation component (or the rural non-farm component) is organised as a sectoral programme, though administratively it is placed within the Ministry of Agriculture and Rural Development (formerly in the Ministry of Cooperation and Rural Affairs). One of the major problems faced by IRD programmes in

general, is the question of inter-ministerial and inter-departmental conflicts of competence, and questions of leadership and coordination of the component elements. For this reason, the head of the committee supervising the national agency for IRD programmes is selected from as high a level in the government hierarchy as is possible, sometimes the Prime Minister himself as was the case in the early years of the Indian Community Development Programme. Alternatively, to overcome the problems of inter-departmental friction, sectoral programmes of rural diversification have been preferred in certain countries, and the district or provincial head made responsible to provide the intermediate level or grass roots level of coordination of component sectoral programmes. But such an arrangement has not necessarily done away with inter-departmental problems. The choice between the two alternatives has to be made by the country concerned, but there is no escape from a coordinating point in all IRD programmes, atleast at the regional or area level, particularly if the programme as a whole has to be directed to the needs of the rural poor.

4.25 At the Ministerial level, the question often arises whether ultimate responsibility for a rural industries programme shall be placed on a Ministry in charge of industrial development, or to a ministry more closely associated with rural development such as a 'Ministry of Agriculture and Rural Development'. There is no straight-forward answer to this question. While it is true that in the first alternative, the level of expertise available for the industrial sector as a whole including rural industries is of a higher order than in the second alternative, and rural industrial programmes stand a better chance of being coordinated with national and regional programmes for industrial development, it is also true that quite often a Ministry in charge of industrial development is not convinced of rural industrialisation (as is the case in regard to small-industries promotion programmes in some countries),

and the rural industrialisation programme suffers from lack of resources and priority that it deserves at the level of the Ministry. In such a case it is much better to be located as in the second alternative till it gains momentum, but here also some degree of coordination in regard to overall industrial policies, such as on extent of protection, location and regionalisation, range of services, etc. is necessary.

4.26 The grass-roots promotion structure is another point for decision. In early experiments, the multi-purpose village-level extension agent was considered as the ideal arrangement to act as a first point of contact of villagers in regard to information on all types of government services, whether in the fields of agriculture, industry, education or health problems. He was also the human catalyst to village-level group action and to promotion of innovative trends. However, as agriculture and other rural activities became more and more complex, specialised sectoral extension agents have been used more effectively. Since they cannot be placed at village level, they have moved in the hierarchy of villages to more central points. In the industrial field, so far provincial-level or district-level industrial promotion personnel have been used. They are multi-purpose within the manufacturing field and quite often their placement starts with a comprehensive survey of industrial potential in a region carried out by a multi-disciplinary team assigned from national or provincial headquarters.

4.27 A rural industrialisation programme should at no time be considered to be a water-tight activity and the exclusive preserve of a District Industries Officer or Provincial Industries Department, Industial promotion, whether at the craft level or at a more sophisticated small-scale or medium-scale level requires credit

servicing, promotion of cooperatives and advisory services for them, educational and training programmes, etc. etc. all of which are normally responsibilities of other government agencies. An integrated rural development programme can provide the structures for such integration. Moreover, such grass-roots industrial promotion agents have to be knowledgeable about technological and other types of services which they can get from back-up institutions such as in regard to more precise information and assistance on drawing up programmes for particular industries, for testing of raw materials and final products, for marketing assistance, etc. Quite often as a programme of rural industrialisation is planned out in greater detail new types of back-up institutions may be needed. For example, suggestions have been made that some of these programmes may require Institutes of Rural Technology, or special communications media or training programmes software production institutions, etc. Such back-up institutions are best organised at national level.